REMARKS

Claim Amendments

Claims 1 and 4-10 are pending. Claim 10 is amended. Claims 12-27 are added. No new matter is added. Support for the claim amendments may be found in the application as originally filed. *See, e.g.*, pages 7-10 and Examples.

Withdrawn Objections and Rejections

Applicants appreciate the USPTO's indication that all previous rejections and objections are withdrawn.

Claim Objections

Claim 7 stands objected to as allegedly being of improper dependent form for failing to further limit the subject matter of a previous claim. The Office Action asserts that due to restriction requirement, "B is CH, so claim 7 is merely restating the limitation found within the restriction requirement."[1]

Applicants respectfully traverse.[2]

Groups I-IV of the restriction requirement were directed to compounds and compositions of the formula (IA).[3] Group II was directed to compounds and compositions where B is CH.[4] Group III was directed to compounds and compositions where B is N.[5] Groups I-IV were subsequently combined into a single group.[6] Accordingly, the elected invention relates to compounds and compositions where B is either CH or N.

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[1] Office Action, page 3.

[2] Applicants note this objection was previously made, addressed, and withdrawn. *See* Office Action dated October 25, 2007, page 4; Applicants April 25, 2008 response, pages 6 and 7; Final Office Action dated August 5, 2008, page 2 ("...any outstanding rejection/objection that is not expressly maintained in this office action has been withdrawn...")

[3] *See* Restriction requirement, page 2.

[4] *Id.*

[5] *Id.*

[6] *See* Office Action dated October 25, 2007, page 2 ("Groups I-IV will be reduced to a single group containing compounds of Formula 1A...").

Claim 1 recites "B is N or CH." Claim 7 requires that "B is CH."[7] Accordingly, claim 7 further limits claim 1.

In view of the foregoing, Applicants respectfully request withdrawal of this objection.

Claim Rejection under 35 U.S.C. § 112, Second Paragraph

Claims 1 and 4-10 stand rejected under 35 U.S.C. § 112, second paragraph, because the USPTO requests clarification of the scope of "heteroaryl" and "heterocycloalkyl." The USPTO asserts that "Applicants' examples in the specification are not limited" and that "Applicants have not defined these terms with reasonable clarity."[8] The USPTO also objects to the recitation of "heterobicycloalkyl," and "optionally substituted."[9]

Applicants respectfully traverse this rejection. First, the USPTO improperly conflates breadth with indefiniteness. Second, "heteroaryl" and "heterocycloalkyl" are terms well known in the art; the specification's discussion of these terms would be readily understood by one of skill in the art. Third, "heterobicycloalkyl" and "optionally substituted" are not recited in the claims and therefore cannot render the claims indefinite. Accordingly, Applicants submit the claims are definite.

A. Breadth Is Not Indefiniteness

The USPTO contends that the claims are indefinite because the "examples in the specification are not limiting." This contention, however, is contrary to law. Indeed, it is well-settled that "breadth is not indefiniteness."[10] Accordingly, simply because a claim covers numerous compounds does not render the claim indefinite.

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[7] Claim 7. (emphasis added).

[8] Office Action, page 3.

[9] *Id.*

[10] *In re Gardner* 166 USPQ 138, 140 (CCPA, 1970) ("Breadth is not indefiniteness"); *In re Robins*, 166 USPQ 552 (CCPA. 1970) (same) citing *In re Gardner*); Buell v. Beckestrom 22 USPQ2d 1128, 1133 (Bd. Pat. App. & Inter., 1992) (citing *In re Gardner*) ("While the claim language under consideration may be broad, breadth is not indefiniteness.").

B. Heteroaryls And Heterocycloalkyls Are Well Known—One Of Skill In The Art Would Readily Understand The Specification's Discussion Of These Terms

The USPTO contends that "Applicants have not defined [heteroaryl and heterocycloalkyl] with reasonable clarity."[11]

Applicants respectfully disagree. As an initial matter, Applicants point out that heteroaryls and heterocycloalkyls are well known in the art. Indeed, over ***twelve thousand patents*** recite either "heteroaryl" or "heterocycloalkyl" in the claims.[12] Accordingly, Applicants submit that one of skill in the art would readily understand what is meant by the recitation of "heteroaryl" and "heterocycloalkyl."

The specification defines "heteroaryl group" and "heterocycloalkyl group" as follows:

> The term "heteroaryl group" is 5 to 7 membered monocyclic or polycyclic group thereof containing 2 to 8 carbon atoms and the same or different 1 to 4 hetero atom(s) such as oxygen, nitrogen or sulfur atom(s). The examples include pyrrole, furyl, thienyl, imidazolyl, thiazolyl, pyrazinyl, indolyl, quinolinyl, isoquinolinyl, tetrazolyl, pyridinyl, pyrazolyl, pyridazinyl, and pyrimidinyl. The "halogen atom" includes fluorine, chlorine, bromine and iodine.
>
> The term "heterocycloalkyl group" is 3 to 7 membered heterocyclic group containing the same or different 1 to 4 hetero atom(s) such as oxygen, nitrogen or sulfur atom(s), and examples may include piperidinyl, pyrrolidinyl, piperazinyl, tetrahydrofuryl, tetrahydropyranyl, morpholinyl, azetidinyl, and homopiperazinyl.

Applicants submit that one of skill in the art would understand the metes and bounds of these terms. Indeed, the skilled artisan can readily envision, for example, 5 to 7 membered monocyclic or polycyclic groups containing 2 to 8 carbon atoms, and the same or different 1 to 4 hetero atoms. The specification's examples provides the skilled artisan with specific structures that fall within this definition. Accordingly, Applicants submit that there is no ambiguity in the recitation of "heteroaryl" and "heterocycloalkyl."

In the event the USPTO maintains this rejection, Applicants respectfully request that the USPTO specifically identify the purported ambiguity over the recitation of "heteroaryl" and "heterocycloalkyl."

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[11] Office Action, page 3.

[12] *See* Search of USPTO patent database, attached as **Exhibit A**.

C. The Claims Do Not Recite "Heterobicycloalkyl" Or "Optionally Substituted"

The Examiner objects to the recitation of "heterobicycloalkyl" and "optionally substituted."[13] These terms, however, are not present in the claims. Accordingly, Applicants request clarification as to this aspect of the rejection.

Applicants note that the terms "substituted" and "optionally substituted" are commonly used in claims directed to chemical compositions. Indeed, over ***eleven thousand patents*** recite either "heteroaryl" or "heterocycloalkyl" and "substituted" in the claims,[14] and over ***six thousand patents*** recite either "heteroaryl" or "heterocycloalkyl" and "optionally substituted" in the claims.[15] Accordingly, Applicants submit that one of skill in the art would understand the use of "substituted" and "optionally substituted" in combination with a chemical group. Furthermore, the USPTO Board of Appeals and Interferences has specifically held that modifiers such as "optionally" do not render a claim indefinite.[16]

In view of the foregoing, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. 112, second paragraph.

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[13] Office Action, page 4.

[14] *See* Search of USPTO patent database, attached as **Exhibit B**.

[15] *See* Search of USPTO patent database, attached as **Exhibit C**.

[16] *Ex parte Cordova*, 10 USPQ2d 1949, 1950 (BPAI 1989) ("The examiner contends that the use of the term 'optionally' is ambiguous, since it is not clear whether the unsaturated aliphatic carboxylic acid is, in fact, encompassed by the claims. The recitation 'optionally' denotes that the unsaturated aliphatic carboxylic acid may or may not be employed. It is not apparent, and the examiner has not explained, why the use of such alternative language fails to particularly point out and distinctly claim the subject matter appellants regard as their invention. It is our opinion that the use of the alternative expression 'optionally' in the rejected claims does not obfuscate the subject matter appellants regard as their invention") (citing *Ex parte* Head, 214 USPQ 551 (BPAI 1981)).

CONCLUSION

Applicants respectfully submit that claims are in condition for allowance, and such disposition is earnestly solicited. Should the Examiner believe that any issues remain after consideration of this response, the Examiner is invited to contact the Applicants' undersigned representative to discuss and resolve such issues.

Respectfully submitted,

HUNTON & WILLIAMS LLP

Dated: April 30, 2009

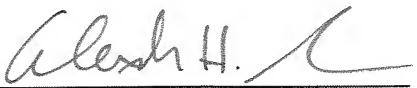
By: 

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Exhibit A

USPTO Patent Full-Text and Image Database

Searching US Patent Collection...

Results of Search in US Patent Collection db for:
(ACLM/heterocycloalkyl OR ACLM/heteroaryl): 12405 patents.
*Hits **1** through **50** out of **12405***

Next 50 Hits

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Refine Search aclm/heterocycloalkyl or aclm/heteroaryl

	PAT. NO.		Title
1	7,514,710	T	Bottom gate thin film transistors
2	7,514,579	T	Boronic chalcone derivatives and uses thereof
3	7,514,566	T	Thiazole compounds and methods of use
4	7,514,564	T	Substituted amine derivatives and methods of use
5	7,514,558	T	Biphenyl derivatives
6	7,514,557	T	Process for preparing acyclic HCV protease inhibitors
7	7,514,468	T	Indolinone derivatives substituted in the 6 position, the preparation thereof and their use as pharmaceutical compositions
8	7,514,462	T	.omega.-Cycloalkyl 17-heteroaryl prostaglandin E.sub.2 analogs as EP.sub.2-receptor agonists
9	7,514,460	T	Benzazole analogues and uses thereof
10	7,514,459	T	Gamma-secretase inhibitors
11	7,514,458	T	Anti-cytokine heterocyclic compounds

12 7,514,452 T 2-furancarboxylic acid hydrazides and pharmaceutical compositions containing the same

13 7,514,451 T 7-(4-Substituted-3-cyclopropylaminomethyl-1 pyrrolidinyl) quinolonecarboxylic acid derivative

14 7,514,448 T Azaindoles useful as inhibitors of rock and other protein kinases

15 7,514,447 T Diarylamine-containing compounds and compositions, and their use as modulators of c-kit receptors

16 7,514,446 T Pyrimidine compounds

17 7,514,442 T Trisubstituted 4-aminopyrazolopyrimidines as cyclin dependent kinase inhibitors

18 7,514,440 T Fused pyrrolocarbazoles

19 7,514,437 T Substituted diketopiperazines as oxytocin antagonists

20 7,514,436 T Pyridazine derivatives and their use as therapeutic agents

21 7,514,435 T Pyrrolotriazine kinase inhibitors

22 7,514,434 T Heterocyclic compounds having an oxadiazole moiety and hydro isomers thereof

23 7,514,429 T Benzoxazinone-derived compounds, their preparation and use as medicaments

24 7,514,426 T Substituted imidazol[1,5-A][1,2,4]triazolo[1,5-D][1,4]benzodiazepine derivatives

25 7,514,422 T 5HT.sub.2c receptor modulators

26 7,514,419 T Phosphorus-containing thyromimetics

27 7,514,417 T A.sub.1 adenosine receptor agonists

28 7,514,410 T Hepatitis C therapies

29 7,514,409 T VLA-4 antagonists

30 7,513,918 T Agents for coloring keratin fibers comprising zwitterionic azomethine dyes

31 7,513,917 T Coloring agents for keratin fibers

32 7,513,916 T Agents for coloring keratin fibers

33 7,511,175 T Inhibitors of the 11-beta-hydroxysteroid dehydrogenase type 1 enzyme

34 7,511,158 T Synthesis of acyloxyalkyl carbamate prodrugs and intermediates thereof

35 7,511,149 T Process for the oxidation of certain substituted sulfilimines to insecticidal sulfoximines

36 7,511,146 T 2-substituted benzimidazole piperidines analogs as selective melanin concentrating hormone receptor antagonists for the treatment of obesity and related disorders

37 7,511,145 T Bicyclic heteroaryl derivatives

38 7,511,144 T Reverse hydroxamic acid derivatives

39 7,511,095 **T** Thioester-terminated water soluble polymers and method of modifying the N-terminus of a polypeptide therewith

40 7,511,073 **T** Amines that inhibit a mammalian anandamide transporter, and methods of use thereof

41 7,511,070 **T** Compounds and therapies for the prevention of vascular and non-vascular pathologies

42 7,511,068 **T** Mercaptoimidazoles as CCR2 receptor antagonists

43 7,511,063 **T** High affinity quinoline-based kinase ligands

44 7,511,062 **T** Substituted 2-quinolyl-oxazoles useful as PDE4 inhibitors

45 7,511,059 **T** Thiazolidinones, their production and use as pharmaceutical agents

46 7,511,058 **T** Heterocyclic inhibitors of MEK and methods of use thereof

47 7,511,057 **T** Triazolopyridinylsulfanyl derivatives as p38 MAP kinase inhibitors

48 7,511,055 **T** Naphthyridin derivatives

49 7,511,053 **T** Spiroazacyclic compounds as monoamine receptor modulators

50 7,511,052 **T** Pyrimidinyl amide compounds which inhibit leukocyte adhesion mediated by VLA-4

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Exhibit B

USPTO Patent Full-Text and Image Database

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Results of Search in US Patent Collection db for:
(ACLM/substituted AND (ACLM/heteroaryl OR ACLM/heterocycloalkyl)): 11038 patents.
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Refine Search aclm/substituted and (aclm/heteroaryl or aclm/heteroc

	PAT. NO.	Title
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45 7,511,053 T Spiroazacyclic compounds as monoamine receptor modulators
46 7,511,050 T Purinone derivatives as HM74A agonists
47 7,511,049 T Pyrazolopyrimidines as cyclin dependent kinase inhibitors
48 7,511,045 T Compounds for the treatment of inflammatory diseases
49 7,511,043 T FXR modulators
50 7,511,042 T Triazole compounds

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Exhibit C

USPTO Patent Full-Text and Image Database

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Refine Search aclm/"optionally substituted" and (aclm/heteroaryl or aclm

	PAT. NO.		Title
1	7,514,566	T	Thiazole compounds and methods of use
2	7,514,564	T	Substituted amine derivatives and methods of use
3	7,514,468	T	Indolinone derivatives substituted in the 6 position, the preparation thereof and their use as pharmaceutical compositions
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5	7,514,459	T	Gamma-secretase inhibitors
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30 7,511,049 T Pyrazolopyrimidines as cyclin dependent kinase inhibitors
31 7,511,045 T Compounds for the treatment of inflammatory diseases
32 7,511,043 T FXR modulators
33 7,511,042 T Triazole compounds
34 7,511,041 T Fused azole-pyrimidine derivatives
35 7,511,040 T Imidazopyrazines as protein kinase inhibitors
36 7,511,039 T .beta.-sheet mimetics and use thereof as inhibitors of biologically active peptides or proteins
37 7,511,038 T Pyridazin-3(2H)-one derivatives and their use as PDE4 inhibitors
38 7,510,672 T Formulation for ink-jet printing comprising semiconducting polymers
39 7,507,832 T Triazole PPAR modulators
40 7,507,827 T Stereoselective method for the production of Clopidogrel
41 7,507,826 T Azaindoles useful as inhibitors of JAK and other protein kinases

42 7,507,767 T Cannabinoid receptor ligands

43 7,507,763 T Resistance-repellent retroviral protease inhibitors

44 7,507,762 T Substituted 4H-chromene and analogs as activators of caspases and inducers of apoptosis and the use thereof

45 7,507,757 T Substituted heterocyclic derivatives useful as antidiabetic and antiobesity agents and method

46 7,507,756 T Scalable synthesis of imidazole derivatives

47 7,507,755 T Inhibitors of cathepsin s

48 7,507,754 T EP.sub.4 receptor antagonists

49 7,507,732 T Cyclopentapyridine and tetrahydroquinoline derivatives

50 7,507,730 T Substituted pyrazolo[1,5-a]pyrimidines as potassium channel activators

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